SCHOOL AND SOCIETY

Volume XXIV SATURDAY, OCTOBER 23, 1926 Number 617

THE TEACHING OF CHEMISTRY IN THE EARLY AMERICAN SECONDARY SCHOOLS

IT has not been generally recognized that chemistry occupied a place of some prominence in the curricula of the early American secondary schools. A writer on the history of education of no less prominence than Cubberley says of the American high school curricula, "In the seventies and eighties came the sciences first in book form and shortly afterwards as laboratory studies."[1] This implies that chemistry and other sciences were excluded from the curricula of the secondary schools in operation previous to 1850, but such an implication does not harmonize with statements contained in the educational literature of this earlier period.

In attempting to establish the time when instruction in chemistry began it would, of course, be futile to look to a period of time earlier than the beginning of the science itself. At the close of the eighteenth century the science of chemistry was quite embryonic. The later half of this century witnessed the classic researches of Black, Cavendish, Priestley and Lavoisier, and these are the foundations upon which the modern science is built. Ernst von Meyer says that at the beginning of the nineteenth century there were practically no laboratories for general instruction in chemistry.[2] Priestley wrote in 1790, "I am very sorry to observe that natural science is very little, if at all, the subject of education in this country (England)."[3]

Of the American colleges, Columbia provided lectures in chemistry for medical students as early as 1754 and in 1800 the trustees determined "that the study of the chemical branch of physics should precede the conferring of the degree of Bachelor of Arts upon the students of that seminary."[4] At least four American colleges provided instruction in this branch of science previous to 1800 and by 1825 no less than nineteen. It is clear from this survey that but little progress in chemistry was made previous to 1800 and that it would be futile to search for it in the curricula of secondary schools which were established earlier than this.

Immediately following 1800, interest in scientific study experienced a rapid growth. Evidence of this is seen in the fact that scientific societies were established in several American cities, and in that "of the more than forty colleges in existence in 1817" all taught some of the branches of science.[5] "Physicians most prominently devoted themselves to science and did most of the teaching. Next to the physicians the clergy contained the greatest number of scientists."[5]

Paralleling and stimulating the growth in scientific interest in chemical phenomena

[1] E. P. Cubberley, "High Schools," Monroe's Cyclopedia of Education, 3: 267.

[2] Ernst von Meyer, "History of Chemistry," by George McGowan, p. 642.

[3] Priestley, "On Air," 1: XXIX; quoted by Florian Cajori, "History of Physics," p. 289.

[4] *Medical Repository for 1800*, published at New York by Drs. Mitchell and Miller, p. 205. Quoted in John McLeon's "History of the College of New Jersey" (Princeton), pp. 10–11.

[5] Survey of the Progress and Actual State of Natural Sciences in the United States from the beginning of the Century to Present Time," *American Monthly Magazine*, 281–89 (1817).

there developed increasing recognition of possible applications of chemistry to agriculture. In spite of the fact that not much progress was made in such applications the possibility was continually referred to in the literature, even from the beginning of the nineteenth century.

The development of the academy provided a fertile field for the extension of popular education in chemistry. It was in 1749 that Benjamin Franklin made public his proposal to establish an academy which would provide instruction in "those things which are likely to be most useful and most ornamental." Following the War of Independence the academy movement spread quite rapidly over the United States. The Regents of New York University reported in 1827 that there were forty-five incorporated academies in New York State giving instruction to 3,050 students.[6] And by 1840 as many as 118 had been established in North Carolina.

Some notion of the purpose of the academy is revealed by reference to some legislation which was attempted in North Carolina in 1803. A bill (which failed to pass) provided that "the course of education to be established in said academies shall consist of the study of the English language, writing, arithmetic, mercantile bookkeeping, geometry, trigonometry, mensuration or surveying, navigation, geography, natural and experimental philosophy, and the laws of North Carolina." The bill provided further "that the study of the dead languages as being useless in a republican form of government and a great waste of time shall form no part of the course of education of the sciences."[7]

In this paper interest in the academy movement is on account of the fact that this school first fostered the teaching of chemistry to adolescents. Reference to curricula and advertising material published by the earlier schools shows that there were at least four academies which gave instruction in this branch of science previous to 1820; at least fifteen that began such instruction not later than the period of 1820–29; and at least fourteen that began not later than the period of 1830–40. The search for material of this kind was by no means exhaustive and the total number of academies which included chemistry in their curricula was no doubt much larger.

Reference to these same sources gives some notion of the method of instruction used in these schools. An advertisement in the *Raleigh* (N. C.) *Register* of March 23, 1827, setting forth the claims of the Oxford Female Academy, reads: "Since the commencement of the session we have received a chemical and Philosophical Apparatus and now each recitation in Chemistry, Philosophy, and Astronomy, is accompanied with a Lecture and Experiments illustrating the principles of these sciences." There is similar evidence to show that in a considerable number of schools the lectures on chemistry and other branches of sciences were supplemented by experimental demonstrations. The problem of equipment, however, contributed in no small degree to the difficulties which stood in the way of efficient instruction. Laboratory equipment was difficult to procure. A text-book by Amos Eaton (1822) gave directions for making or borrowing from a druggist the apparatus required for the experiments in the text. Larger pieces of apparatus, when desired, were ordered from England.

The existence of elementary text-books was unquestionably essential to the promotion of instruction in chemistry in the academies. This was especially true since there was, during this period of pioneering, a shortage of qualified teachers. At least

[6] *American Journal of Education*, 3: 357.

[7] Charles L. Coon, "Publication of the North Carolina Historical Commission; Public Education in North Carolina. A Documentary History," p. 46.

three elementary books appeared in 1822, and this fact probably reflects the rapid extension of chemistry as a secondary school subject during the decade of 1820 to 1830. The number of text-books available must have outrun the demand for as many as eight different elementary books, written or revised by American authors, were reviewed in the journals during the period of 1822 to 1833. In addition to these eight, nineteen other texts, most of which were more complete treatments and by English authors, were listed in the advertising pages of Robert Hare's "Compendium of the Course of Chemical Instruction in the Medical Department of the University of Pennsylvania" (1836). This makes a total of twenty-seven texts offered for sale in the United States as early as 1836. The text, with the title, "Conversations on Chemistry," by Mrs. Bryant, edited in America by J. L. Comstock, was its twelfth edition in 1830. The existence of the elementary texts is conclusive proof that chemistry occupied a place of considerable prominence in the curriculum of the academy of this period, for certainly these books would not have been prepared had there not been some demand for them.

It would of course be erroneous to conclude that the instruction was efficiently done. In 1830, Catherine Beecher, principal of the Hartford Female Academy, reported to the trustees of that institution on the futility of much that was being attempted in instruction in science,[8] and in 1854 Francis Wayland said before the American Institute of Instruction: "I have no doubt that thousands of the pupils of the somewhat advanced schools have gone through a system of chemistry supposing that they have studied that science without ever having witnessed a single experimental illustration, and whose whole knowledge consisted in the recollection for a few weeks of some of the terms of the chemical nomenclature."[9] This statement indicates quite clearly that the text-book and question and answer method was by necessity widely predominant.

Organized effort to popularize and promote instruction in chemistry in secondary schools began about 1820. At about this time and a little later movements were put under way designed (1) to create a public sentiment which would be favorable toward giving the sciences a place in secondary schools; (2) to provide science teachers; and (3) to make apparatus available for use in the schools. These movements were fostered by different individuals, the more prominent of whom seemed to be John Griscom, Josiah Holbrook, Chester Dewey, Stephen Van Rensselaer and Amos Eaton. These pioneers gave popular lectures on scientific subjects; they fostered the formation of popular scientific societies and teachers' associations, particularly the American Lyceum and the American Institute of Instruction; they studied the European scientific schools, particularly Fellenberg's institution at Howffyl, Switzerland; they endowed and encouraged the endowment of scientific schools in America, particularly the Rensselaer School at Troy, New York.

John Griscom (1774–1852) was teacher of a Friends school at Burlington, New York, and was apparently a man of much ability. He became interested in natural philosophy and in order to extend his interest purchased from England, with the profits from his school, an air pump and other articles of apparatus. He studied chemistry from Henry's "Epitome," but after much effort concluded that the subject was too difficult to be understood by any means other than by professional study with the aid of an instructor. A little later an English translation of Lavoisier's chem-

[8] *American Journal of Education*, 5: 63–66.

[9] Lectures delivered before the American Institute of Instruction at Providence, 1854, p. 8.

istry fell into his hands and with this he had greater success. He said he read it with "utmost delight, understood everything clearly and found it the most interesting study he had ever engaged in."[10] A later edition of Henry's "Epitome" he described as "perfectly intelligible and delightful." At his own expense he procured chemical apparatus and gave instruction to his more advanced students. He remarked that his efforts were probably the first made in that part of the United States to teach chemistry in the common schools.[10] During the autumn of 1806 he issued a hand bill announcing to the citizens of Burlington a course of public lectures on chemistry, to be given at his schoolroom. The proposition, he said, was well received and the most intelligent citizens gave it their patronage.

Mr. Griscom's success led to his receiving an attractive offer to go to New York City and take charge of a school there. In New York he continued his popular lectures along with his teaching. Through the aid of wealthy patrons he accumulated a large stock of apparatus which he used in conjunction with his lectures. He often spoke before special audiences. "Merchants, mechanics, apprentices, professional men, females, each, as the proposals were made to them contributed to fill his benches and swell the tide of popularity with which his efforts to extend the benefits of scientific knowledge among the masses were hailed."[11] His interest in popular education took him to Europe where he studied the Lancastrian plan of secondary education. Following his return he established a school for boys which he conducted on this plan. The school was highly successful. After the school had closed he wrote:

> To the operation of the High School, conjoined as it was, with lectures, on science with the aid of apparatus that had cost from time to time nearly $4,000, delivered to the higher classes of pupils, may be in some measure ascribed that pervading and quickened attention to the important subject of popular education which now so increasingly engages the mass of the thinking members of the community.[12]

Through contact with his pupils and with popular audiences Mr. Griscom was able to extend enormously his influence in support of popular education in chemistry.

Josiah Holbrook was another pioneer in the cause of popular education in science. In 1824 he was a partner in the foundation of an agricultural seminary. He provided instruction in the classics and in the applications of mathematics and science to agriculture and industrial pursuits. His prospectus also gave plans for the preparation of science teachers to teach in the "common schools."[13] This institution was not endowed and was not successful. His next efforts to promote popular education in science was through the formation of Associations for Mutual Instruction. Through these he hoped "to procure for youths an economical and practical education" and to teach the applications of the "sciences and the various branches of education to the domestic and useful arts and to all the common purposes of life." The society should hold meetings as often as it thought expedient, for the purpose of mutual instruction in the sciences. Books and apparatus were to be secured and the society was to aid in establishing and patronizing institutions for the education of youths in the applications of science to agriculture and the useful arts and institutions for the training of teachers. These societies were founded in many centers and his efforts culminated in the formation of the American lyceum which continued as a strong organization

[10] "Memoirs of John Griscom," pp. 49–50.

[11] *Ibid.*, p. 99.

[12] *Ibid.*, p. 210.

[13] Barnard's *American Journal of Education*, 8: 248.

for about a decade.[14] To meet the demand growing out of the lyceum movement for articles on science he edited and published "Scientific Tracts Designed for Instruction and Entertainment, Adapted to Schools, Lyceums and Families,"[15] and a little later "The Family Lyceum." Mr. Holbrook's activities led him into most of the Atlantic states and as far west as the Mississippi River. At all times he was an ardent supporter of instruction in science in the common schools.

In 1824 Stephen Van Rensselaer established and endowed the Rensselaer School, now known as the Rensselaer Polytechnic Institute, at Troy, New York. Amos Eaton, a man of science and author of an elementary text-book on chemistry, was appointed senior professor. The chief aim of the school was to furnish training in the applications of science and more especially to train youths for the service of science teaching.[16] In order to extend the influence of his school outside the bounds of its immediate vicinity the founder planned to train teachers to serve as itinerant lecturers and to lecture on the applications of the sciences to agriculture and manufacturing. Chemistry had a prominent place in the course of training. At the first meeting of the board of trustees it was "Resolved that—The exercises of the Day Class for six hours in each day, except Sunday, shall consist of experiments in chemistry performed by the students themselves and in giving explanations or the rationale of the experiments." The afternoon class "will hear no afternoon lectures; but their exercises will consist of a course of experiments in chemistry performed by themselves with the rationale conducted under the superintendence of the senior professor." The evening class was instructed on three evenings a week by lectures on the difference sciences.[17] The essential point of view in the method of communicating instruction was "to instruct by putting the pupil in the place of teacher." To accomplish their purpose of giving instruction in the applications of science to the common purposes of life, it was ruled that:

> Each student shall during the first six weeks, give ten lectures on experimental philosophy; ten lectures on chemical powers and on substances not metallic; and ten lectures on metalloids, metals, soils, and mineral waters. For the remainder of the term each student shall be exercised in the application of the sciences before enumerated to the analysis of particular selected specimens of soils, manures, animal and vegetable substances, ores, and mineral waters; and shall devote four hours each day to the examination of operations of the agriculturists on the school farm, together with the progress of cultivated grains, grasses, fruit trees, and other plants, to practical land surveying and general mensuration, to calculations upon the applications of water power and steam which is made to the various machines in the vicinity of the school, and to an examination of the laws of hydrostatics and hydrodynamics which are exemplified by the locks, canals, aqueducts, and natural waterfalls surrounding the institution.[18]

In 1826 a "preparation branch" was provided for those unqualified for entrance to the school proper and in 1828 "at the urgent solicitation of several judicious friends, a lady, well qualified for the duty, took charge of two experimetal courses in chemistry and natural philosophy for ladies." During this same year the patron issued an invitation to each county in New York to furnish one student selected by the "first judge" of the county for gratuitous instruction. This student was to enjoy all the privileges of the institution, and in return for his instruction was expected to return to the county from which he had been sent and engage in the work of giving

[14] "American Annals of Education," 1: 273–280.

[15] *American Journal of Education*, 5: 247–254.

[16] "History of Rensselaer Polytechnic Institute," p. 9.

[17] *Ibid.*, pp. 31–32.

[18] *Ibid.*, p. 41.

instruction in the sciences in the common schools.[19]

The educational work of Amos Eaton was, as already indicated, closely associated with that of Stephen Van Rensselaer. From 1824 to 1842 Eaton was senior professor and chief spokesman for the Rensselaer School. The publications of the school were liberal in allowing to Mr. Van Rensselaer credit for formulating the plan of instruction, but it seems certain that the relations between the two were always most harmonious. Eaton's industry and enthusiasm made him an invaluable man for promoting the Rensselaer plan for extending the teaching of science.

The work of John Griscom and Josiah Holbrook as individuals and of Stephen Van Rensselaer and Amos Eaton as the guiding spirits of the Rensselaer School represent the most influential of the agencies which were active in promoting the teaching of elementary science. The organized agencies that came into being during their time indicate clearly that many others were directing their efforts toward the accomplishment of a similar purpose. It is impossible to measure the influences of these personages and organization. Only the object toward which they were working can be definitely given. Among the many motives stimulating their efforts was the desire to improve education. Other influences than those noted above served to support instruction in science in secondary schools and one of probably no small moment was the fact that chemistry and other natural sciences were required subjects of study in certain secondary schools of Germany and France.

A summary of the arguments favoring popular instruction in this subject shows that its major support was for its functional or applied values. The Rensselaer school probably did more than any other single agency of the first half of the century to promote the extension of instruction in chemistry. Its promoters were guided by a desire to teach the applications of science and to train science teachers. Other arguments were offered, but in all the literature examined no individual or agency neglected this one nor attempted to deny its importance. Chemistry was also supported on account of the interest in its spectacular demonstration. The disciplinary or training value, which has been given so much prominence in educational literature supporting instruction in science during the first two decades of the present century, was scarcely mentioned by the pioneers quoted in this paper. This value was claimed, however, for other subjects of study, particularly Latin and mathematics. It was not until well toward the close of the period covered by this paper that attention was directed toward the training value, and it appears that this turn was occasioned by the fact that the sciences were placed in competition with subjects whose main support was reputed transfer or disciplinary values.

The first public high school was established in Boston in 1821 and there seems to have been no more than eleven in the United States in 1837. Following 1850 the high school movement extended rapidly.

The second high school to be established, the Boston High School for Girls, was the first to provide definitely for instruction in chemistry. The school was founded in 1826 and it was provided that the course of study "should include as much chemistry as would be useful in domestic economy." It was placed in the third year and made a required subject of the first course of study.[20] Figures compiled by Inglis[21] show that the early high schools in Massa-

[19] *American Journal of Education*, 3: 573.

[20] *American Journal of Education*, 1: 99.

[21] Alexander Inglis, "Rise of the High School in Massachusetts."

chusetts generally made provision for instruction in chemistry. In 1857 Massachusetts passed a law requiring that chemistry along with several other subjects be taught in the schools of every town containing five hundred families. This law was repealed in 1898.

The high-school movement made rapid strides in Ohio following 1854 and there, as in Massachusetts, provision was commonly made for instruction in chemistry. James C. Booth, who had been a student in the Rensselaer School, was appointed teacher of chemistry in Central High School, Philadelphia, in 1842. The first high-school buildings erected in Chicago and in St. Louis contained laboratories for chemistry. A report, by Henry Barnard, on the subjects of study offered in thirty high schools in 1867 showed that twenty-six offered chemistry and all offered "natural philosophy."[22]

This brief overview of the history of the teaching of chemistry in secondary schools shows the fallacy of Professor Cubberley's statement quoted in the first paragraph; it establishes the period in which this science became a subject of secondary education; and it explains in part why chemistry was an acceptable subject for these early schools.

With the period of 1880 to 1900 may be properly associated the work of the standardizing agencies, especially the Committee of Ten (1893), whose reports affected in large measure the content and the method of instruction in high school chemistry. But from the evidence presented here it is clear that this science has had a place in secondary education almost since the beginning of the academy movement. Furthermore, it has been shown that chemistry was given a place largely because its promoters believed that instruction in it would result in learning which would be of utilitarian value in the trades, industries and professions.

S. R. POWERS

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

[22] Barnard's *American Journal of Education*, 19: 463.

THE MAIN DIVISIONS IN THE CLASSIFICATION OF GEOGRAPHY[1]

CHANGING CONCEPTIONS OF THE FIELD OF GEOGRAPHY

GEOGRAPHY is a dynamic science. Activity or change is one of its most fundamental principles. This is true not only of the material with which it is concerned but also of the conception of its field, function and definition as held by the workers most distinguished in the field. In the long run the definition, purpose and divisions of geography are established or modified according to the views or interests of the authorities in the subject, allowing of course, for certain environmental influences, as it were, in the way of limitations due to similar activities on the part of workers in related fields.

So we find the prevailing conception of geography quite different now from what it was, say, fifty years ago. Then it may be said to have been in the *descriptive stage* and was usually defined as a description of the earth on which we live. The subject at that time was commonly classified into three branches: mathematical, physical and political. A little later geography passed from the descriptive to what some called the *scientific stage*, in which causal explanations were emphasized. As early as 1892 Professor Davis called attention to "the increasing attention given in recent years to physical over simply descriptive and political geography." Then, or should

[1] Read at the Madison, Wisconsin, meeting of the Association of American Geographers, December 31, 1925.

I say even earlier, it became the *science of distribution* but studied causes as well as surface facts about the earth. Thus in 1881 the International Geographical Congress at Venice formulated a definition which stated that "geography includes the study of the surface forms of the earth and the reciprocal relations of the different branches of the organic world" and is distinguished from other sciences by "indicating the distribution of beings organic and inorganic upon the earth," and in 1899 "The International Geography" defined the subject as "the exact and organized knowledge of the distribution of phenomena on the surface of the earth, culminating in the explanation of the interaction of man with his terrestrial environment." This idea of distribution as the distinguishing characteristic of geography still lingers in some quarters, notably in England, as seen in Herbertson's definition, or that of Hogarth. A recent definition of Sten de Geer, the Swedish geographer, is another instance of this view.

THE BIOGEOGRAPHIC STAGE OF THE SUBJECT

In this country, however, early in the twentieth century, largely due to the influence of Professor Davis, the subject entered what might be called the environmental or *biogeographic stage*. Dr. Davis proposed to define geography as "the relation between the earth and its living inhabitants, between the physical environment and the environed organism," that is, a combination of physiography, which deals with the physical environment, and ontography, which deals with the environed organism. This concept was adopted by Tower in his well-known classification of geography into (1) *physiography*, subdivided into geoplanetology, meteorology, oceanography and the physiography of the lands, and (2) *ontography*, divided, according to the kinds of living things, into phytogeography, zoogeography and anthropogeography.

An important objection to this classification, however, is that the first main division, namely, physiography, is not geography at all, according to the modern definition. The same thing may be said of Professor Tower's four subdivisions of physiography. They are all not only natural sciences, but non-biological sciences, whereas according to his own definition, geography is concerned with life. It would seem that the divisions of the subject ought at least to be defined in the terms of the subject itself.

Nevertheless, this new biogeographic phase of the subject was quite a step in advance. It made geography the point of contact between the natural sciences and the social sciences, enabling this study to gather up the results of such natural sciences as geology, meteorology, botany and zoology, and offer them as raw material for workers in social sciences, that is, the historians, the sociologists, the economists, the political scientists, etc.

RECENT EMPHASIS ON THE SOCIAL ASPECTS

More recently the tendency among geographers has been to emphasize the social or humanistic aspects of geography, whereas, a quarter of a century ago many workers in the field sought by various means to exclude the human element from geography, swinging over to the point of view that, after all, "The proper study of mankind is man." Thus Professor Barrows in his presidential address of 1922 to the Association of American Geographers presented a powerful argument for "Geography as Human Ecology." This would leave the physiography of Davis and the phytogeography and zoogeography of Tower to the natural scientists and define geography "as dealing solely with the mutual relations between man and his natural environment."

Perhaps not a majority of American geographers are yet willing to go this far, but the indications are that Professor Barrows has read the signs of the times aright.

MODERN GEOGRAPHY A SCIENCE OF RELATIONSHIPS

Anyway, modern geography is generally considered a science of relationships, and therefore may be said to divide itself naturally into two main parts. If the subject is to deal with a relationship, there must be at least two things or groups of things between which the relationship exists. If this relationship is to be geographic, the two sets of things related are: (1) the various environmental factors considered from the point of view of their geographic influences; and (2) the living beings and their activities considered in the light of their adjustment to the environmental factors and the ways in which they modify or make use of these elements in their environment. Logically, then, the main divisions of geography would seem to be two, corresponding to these two sets of related things.

DEFINITION AND MAIN DIVISIONS

There may be some difference of opinion as to just what is included in these two divisions, but in the opinion of the writer of this paper, accepting as he does the definition of geography which makes it the study of the reciprocal relations of man and his environment, the two main divisions of geography are (1) physical geography and (2) social geography. Both of these, being geography, must deal with this essential geographic function, namely, the relation between man and his environment. But they look at the subject from opposite sides of the equation. Physical geography treats the relationship from the side of the environment, whereas social geography examines it from the point of view of man and his activities, that is, the social aspect. The term "social" is here used in its usual meaning, as when we speak of the social sciences. Derived from the Latin *socius*, meaning companion or associate, the adjective social seems preferable to the term human, as applied to geography, because in this field of study human beings are considered not as individuals but rather in groups, that is, in numbers, in relation to the earth of which they form an integral part.

THE NEW GEOGRAPHY IN THE SOCIAL STAGE

That we are to-day passing from the biogeographic phase to the human or *social stage of geography* is evidenced by the writings of an increasing number of geographers. Thus Mill, in "The Realm of Nature," says: "Geography treats of the earth in its relation to man." More recently Bowman, in "The Andes of Southern Peru," remarks: "It is peculiarly the province of geography to study the present distribution and character of men in relation to their surroundings." Miss Newbigin in "Man and his Conquest of Nature" asserts of geography that "its essential problem is to discover why man thrives more at certain parts of the globe than at others." Dr. Charles L. Robbins in "The School as a Social Institution" writes: "In geography the earth is to be studied not merely as one of the planets exemplifying certain natural laws, but rather as the scene of the struggle for human progress. . . . The physical interpretation of Man and Nature is giving way to a human, that is, a social treatment of both." And Professor L. W. Lyde sums it up thus: "To most of us Geography seems to have neither meaning nor value apart from Man."

MAN AND ENVIRONMENT

Instead, then, of drawing the line of geographic relationships between the inorganic environment and the environed or-

ganisms (plants, animals and man), as was done in the biogeographic phase of geography, there seems good authority among geographers for placing plants and animals among the physical factors of the environment and considering man, or society, as the environed organism. Moreover, geography is not the only science concerned with relations between environment and life. Both botany and zoology deal with adaptations of life to environment. So, also, do the paleontologists have something to tell about the adaptations of life forms in their vertical distribution in the geological scale. No true conception of the fundamentals of organic adaptation can be complete without the sciences of botany, zoology and paleontology, as well as geography. So why not leave something to them and content ourselves with the relationship of man to his environment, especially as logic, also, warrants this position? For while it is true that man is subject to the same laws as plants and animals, yet on account of his intelligence his potentiality of adaptability is so far in excess of that of any other organism that man seems to stand apart as, in a sense, the culmination of the evolutionary process.

Even considering man as a mere animal, we may note two outstanding characteristics: (1) a distribution over all sorts of natural environments far greater than that of any other animal; (2) a homogeneity which prevents his classification into distinct species or genera. Thus a diversity of environment, yet a similarity of structure such that only sub-species or varieties are recognized, and not all his classifiers agree as to these. Then, too, in the case of man geographers have to consider culture or civilization, and that is a phenomenon which does not exist in the field of the sciences devoted to the environmental adaptations of plants and the lower animals.

While man is thus in a class by himself, so to speak, yet modern science would not treat man and nature as opposing forces. Man is after all a part of nature and thrives best when his activities are in harmony with his natural environment. The influence of environment, however, is a very complex affair. The numerous environmental factors do not act singly, but together. Consequently, man's environment may be considered the sum total, or perhaps better, the resultant of all the external conditions which relate to him. We can hope to understand and interpret the nature of this complex of conditions only by analyzing the environment into its several components and noting the relation of each to man, his distribution and his activities. We can hardly expect any other science to do all this. It would seem then to be part of the business of the geographer to do it.

THE PLACE OF PHYSICAL GEOGRAPHY

Consequently, the first main division of geography appears logically to be concerned with the depicting and analyzing of the various environmental factors from the point of view of their importance as the physical basis of society. This, then, is the field of physical geography. It is a fundamental part of geography and basic to any scientific study of the subject. It is distinguished from physiography or geomorphology in that it includes not only the physiographic and climatic features but also the biological factors in the environment of man, and goes on to point out in each case some of the reciprocal relations between these factors and man.

The subdivisions of physical geography would naturally be those which deal with the geographical relations to men of each of the great factors of his natural environment. For the present purpose these may be given as location (or position), land, water, climate, plants and animals. The geography of each of these, to avoid the use of technical terms, may be said then

to constitute the subdivisions of physical geography. Thus we have the geography of the land, the geography of animals, etc. Each may be further subdivided according to the degree of specialization desired, as, for example, under land special study may be made of the geography of soils. But in every case, to make it geography, there should be some attention given to its relationship to human life or activity.

SOCIAL GEOGRAPHY

The second main division of the science, namely, social geography, emphasizing as it does the human side of the geographic relationship, naturally should be subdivided according to the classification of man and his activities. Thus we have racial geography, economic geography, political geography, military geography, etc., as the chief subdivisions. Each of these can be further subdivided on the same basis of man's distribution and activities. For example, under economic geography would come industrial and commercial geography, each dealing with the corresponding economic activities in relation to natural environment. Historical geography also comes under social geography, but it is not coordinate with the above subdivisions, as it may be studied with respect to any or all of them when they are considered in their time relations. All the foregoing divisions, too, may be applied to any specific region and thus become regional geography. The essential thing in all social geography is that it is man, his distribution or his activities studied in relation to environment.

C. C. HUNTINGTON
OHIO STATE UNIVERSITY

EDUCATIONAL EVENTS

TURKISH EDUCATORS IN SOVIET RUSSIA

A DELEGATION of the Turkish Ministry of Education recently visited Moscow, Leningrad and other cities of Soviet Russia. There is interest in a report of a reception accorded the Turkish educators published in a news bulletin of the Russian Information Bureau, Washington, D. C.

More than 900 persons attended "an evening of Soviet-Turkish *rapprochement*," held in the Kamerny Theater, Moscow, including representatives of the People's Commissariat of Education and leaders of the Soviet government.

The evening was opened in a speech of welcome by Mme. Kameneva who noted the growth of cultural relations between USSR and Turkey. Greetings were delivered by the Turkish *Chargé d'affaires* in USSR M. Bedi-bey, by Mr. S. I. Aralov, of the Collegium of the People's Commissariat for Foreign Affairs, by Professor Borozdin, of the Scientific Orientalist Association, by a representative of the Turkish students, and others.

M. Nafi-bey delivered an address on the state of popular education in Turkey, noting the tremendous educational progress since the revolution in Turkey. For the introduction of new reforms the Turkish Ministry of Education thought it necessary to study the cultural experiences of other countries. The organization of popular education in USSR was of particular interest to Turkish educators; hence the visit of the Turkish educational delegation to USSR.

Mr. Lunatcharsky delivered an address on the "New Culture" which is being built in Russin, Turkey and India upon the ruins of the old, imbibing everything that is best in the culture of the European countries.

The evening concluded with a concert of Turkish music, in which part was taken by leading artists of Moscow.

On behalf of those assembled the following telegram was sent to the Soviet Ambassador to Turkey: "Assembled at this evening of Soviet-Turkish *rapprochement* we send warm greetings through you to the Turkish people, expressing the hope that the existing cultural relations between us will grow stronger year by year."

After a prolonged stay in Moscow the delegates of the Turkish Ministry of Education proceeded to Leningrad, where they spent a fortnight studying the activities of the leading institutions of learning and the museums and laboratories. At the Mineralogical Museum, Academician Fersman presented the guests with a collection of minerals of USSR and with photographic albums of the bicentenary festivities of the Academy of Sciences.

From Leningrad, *via* Moscow, they went to the Ukraine. In a parting conversation M. Nafi-Atufbey expressed great satisfaction with the impressions gained by the delegation as to the state of popular education of USSR, which will furnish a great deal of valuable material for application in Turkey.

PREMIER POINCARE AND THE SCHOOLS OF ALSACE

A WIRELESS dispatch to the New York *Times* of October 15 reported the return to Paris of Premier Poincaré, of France, following a visit to Alsace to investigate the school situation. In order to see for himself how the difficult problem of religion and language is being met in the province, Premier Poincaré attended classes in many schools. His practice was to call without notice and to sit next to the teacher while the class continued with its lessons.

French is now the official language in Alsace. Premier Poincaré, as reported in the dispatch, instructed the teachers to give lessons in French and in German so that he could compare them and judge as to the advance made in French since 1918. He was said to be pleased with the results. Students in the former German province are rapidly becoming as proficient in French as in German.

The Herriot government attempted to introduce in Alsace and Lorraine the French system of purely secular instruction. The schools had been under the direction of the Catholic church and there was a strong opposition to this. "A change has been established by which Jewish, Protestant and Catholic instruction is given. The premier is confident this system will be productive of admirable results."

THE ADULT EDUCATION ASSOCIATION

THE first concerted movement in support of adult education in the United States has been inaugurated in the formation of the American Association for Adult Education, whose national headquarters have been opened at 41 East 42nd Street, New York City. This action follows two years of preparation, which included a survey by the Carnegie Corporation of existing adult education enterprises and the sounding of sentiment in representative centers of the country and among adult education organizations of every description and leaning.

A statement from the association reports the following:

The studies which preceded the organization of the association revealed an active and widespread interest in adult education. Though often unconscious that they were pioneers in a new movement across intellectual frontiers, adults were pursuing education. There has been adult education in this country without an association and before one was thought of. Perhaps its highest value lay in that it had arisen on impulses generated from within rather than stimulated from without. In small spontaneously formed study groups, in workers' classes, in institutes and forums or university extension classes throughout the country, men and women were occupied in studying in their leisure hours.

Early in 1926 a series of conferences was held in New York, San Francisco, Chicago, Nashville and Cleveland to consider what deductions might be made from these facts. To the conferences came, not those with interests at large or those interested habitually in new movements, but men and women professionally engaged in adult education. They expressed the belief that an organization, which sought not to centralize, standardize or impose uniformity, but to serve as a clearing house of information and ideas, a center of discussion and a repository of the records and practices of the profession, would further the idea of adult education and give assistance to adult educators and students.

An organization was formed and its offices are now open, with Morse A. Cartwright as executive director and an executive board which reflects the differences in point of view and practice to be found in the field. It is to be the association's policy to proceed slowly and to make progress enduringly rather than swiftly. Its first object will be to establish relations with those engaged in adult education, whether as teachers or students; groups, schools and individuals are eligible to membership. Preliminary to opening the association's offices, Mr. Cartwright attended a conference of the World Association for Adult Education in Copenhagen last August and put himself in touch with adult educators in European countries, where there is a much larger body of experience than here.

The association plans no campaigns, no drives. It will seek to put on record the efforts at adult education already begun, and stand ready to give

them what assistance it can. Similarly it will stand ready to give advice and assistance to those which are in prospect or contemplation. It will publish pertinent material at intervals and convene conferences when subjects vital enough press for discussion. Most of all, it will seek to accumulate a body of material bearing on the problems of adult education to which all those facing such problems may resort.

One step has already been taken in the opening of four teacher training courses in adult education at the New School for Social Research in New York City. These courses are: "Fundamental problems in adult education," by Everett Dean Martin, director of the People's Institute; "Method and content of adult education," by E. C. Lindeman; "A practice course in adult education," by Harry A. Overstreet; "Educational psychology," by Leta S. Hollingsworth.

Publication of a series of studies on adult education has begun. These studies were made under the auspices of the Carnegie Corporation of New York. The five volumes (Macmillan Company, New York) are:

"Libraries and Adult Education," prepared by the American Library Association.

"New Schools for Older Students," by Nathaniel Peffer.

"Educational Opportunities for Young Workers," by Owen D. Evans.

"The University Afield," by Alfred L. Hall-Quest.

"Correspondence Schools, Lyceums, Chautauquas," by John S. Noffsinger.

The officers of the association are: *President,* Dean James E. Russell, of Teachers College, Columbia University; *vice-president,* Professor Leon J. Richardson, of the University of California; *treasurer,* J. H. Puelicher, of the American Bankers' Association, Milwaukee; *secretary,* Miss Margaret Burton, of the National Board of the Young Women's Christian Association, New York, and *executive director,* Morse A. Cartwright, of New York.

AMERICAN EDUCATION WEEK AND THE U. S. BUREAU OF EDUCATION

DR. JOHN J. TIGERT, U. S. commissioner of education, will deliver an address on the history of education in the United States at the Sesquicentennial Exposition, in Philadelphia, on November 8. In connection with the program of American Education Week at the exposition on that day, addresses will also be given by the chief educational officers of the thirteen original states.

In former years American Education Week was sponsored directly by the U. S. Bureau of Education. A statement recently issued announces that the chief sponsors of the week this year are the National Education Association and the American Legion.

The Bureau of Education will not participate actively. Its work in this behalf has been accomplished. American Education Week is now a fixed event in the educational calendar, and no further need exists for the active aid of a government bureau. Other agencies can and will continue efficiently the work which is necessary for a central national organization to do. It is in accordance with its settled policy that the Bureau of Education withdraws from an undertaking which can be conducted equally well by others.

The first published suggestion of American Education Week was apparently that of Dr. P. P. Claxton, former commissioner of education, who presented the idea in *School Life,* the official publication of the bureau, in the issue of October 15, 1920. Letters urging cooperation were sent to state officers, school superintendents, college presidents, newspaper and magazine editors, labor unions, civic organizations and other associations. The response was general. Many governors issued proclamations, nearly all the state superintendents cooperated, and the observance of the week became wide. In 1922 the American Legion joined with the National Education Association in prominent forwarding of the movement and these two organizations continue as the chief sponsors.

THE COST OF RURAL SCHOOLS IN ILLINOIS

THAT consolidated schools may be operated at approximately the same *per capita* cost as one-teacher schools is the finding reported in a statement recently issued by the U. S. Bureau of Education analyzing the costs of consolidated rural schools in Illinois. The statement was based on information received by the bureau from the Illinois State Teachers Association.

As quoted in the *United States Daily* the report showed that the daily current expenditure per grade pupil was 45.9 cents, including transportation expenditure, in the 36 consolidated schools in Illinois which spent the most for pupil transportation in 1924–25. In 330 of the 745 one-teacher schools of six counties in the same part of the state, the daily current expenditure per pupil was 46 cents or more. The further statement is made that 34.1 per cent. of the teachers in the consolidated schools were in class A, the highest grade, while only 10.8 per cent. of those in one-room schools were in this class.

Other studies and statistics have shown that consolidated schools may be operated at approximately the cost required by one-teacher schools. There is a great saving when each teacher has a full quota of pupils, inasmuch as the instruction item is the largest of the school budget. Instead of several one-room schools in a community, some of which may have only a few pupils but all of which require a separate organization, it is possible in many communities to have one central school operating at almost if not quite the same cost as several. This was found to be true in the thirty-six consolidated schools of Illinois which spend the greatest amount for transportation.

THE RETENTION AND DISMISSAL OF UNDERGRADUATES WITHIN THE COLLEGE

ALONG with its recommendations as to admission to college, a committee of the Association of University Professors recently presented a proposal for a further selection within the college as follows:

> Each college should admit to its junior class a specified smaller number of students than it admits to its freshman class; selection should be made on a competitive basis and those who fail should be honorably dismissed with a certificate.

The report was prepared for the association by a committee composed of Professor Harold H. Bender, of Princeton University; Professor Anna A. Cutler, of Smith College; Professor Olive C. Hazlett, of the University of Illinois, and Professor Robert K. Root, of Princeton University. Portions of the report referring to the scheme of retention or dismissal of undergraduates within the college read as follows:

> The committee believes that the less deserving undergraduates can best be eliminated and that at the same time an effective stimulus can be given to the whole undergraduate body by applying at the end of the sophomore year a process of competitive selection analogous to that recommended for admission. Having determined the number of freshmen which it is prepared to receive, a university should then announce that it would admit to the junior class a specified smaller number of students. The committee has in mind a ratio which should be not less than fifty per cent. and not greater than seventy-five per cent. The selection should be made on the basis of an intelligent and careful scrutiny of the scholastic records made during freshman and sophomore years, a scrutiny that might well prefer a candidate who had shown brilliant promise in certain studies over one of his fellows with a somewhat higher general average made merely of respectable mediocrity.
>
> Students who have met the minimum requirement of the first two years but who have failed in competition with their fellows to win promotion into the upper college, should receive certificates of honorable dismissal. They should have full standing with their classmates in organizations of alumni. They should in no way be made to feel that they are sent away in disgrace. With such an arrangement widely recognized and understood, many boys and girls not of markedly intellectual bent would no doubt plan from the beginning to take only the two years' course.

PLANS FOR THE ELIMINATION OF TWO COLLEGE YEARS AT STANFORD UNIVERSITY

STANFORD UNIVERSITY plans to eliminate the first and second year of college work and eventually become a graduate university, according to an announcement by President Ray Lyman Wilbur, reported in a dispatch to the Boston *Evening Transcript*.

Entrance requirements, which now include high school or preparatory school graduation, will be raised to require first- and second-year college work, if plans now being studied are put into effect. The change will be made because Stanford is finding greater demand for its higher educational facilities, and with limited room and restricted enrollment will have to devote its attention to the higher fields of education, Dr. Wilbur said.

The work of the first two years in Stanford can be accomplished by any number of other institu-

tions, including junior colleges, and the pressure for enrollment in the graduate courses will require us to eliminate all lower division work.

Modern educational systems have made the Bachelor of Arts degree no longer a terminal in the college career, but rather a dividing point.

We are beginning to base our courses upon study beyond the A.B. degree, which formerly terminated four years of college work. The natural division is at the beginning of the junior year, when highly specialized work is first undertaken, and the bachelor degree now marks the point where general education has been practically completed and the student enters a period of intensified study in his particular field.

We are organizing our departments into schools of letters, physical sciences, social sciences, engineering and the present law school, medical school, graduate school of business and others. We are studying the problem of eliminating the two lower classes, and within a short time Stanford will take students only after completion of the first two years of college work.

THE SITUATION AT THE STATE UNIVERSITY OF WASHINGTON

ACCORDING to press dispatches a petition for the recall of Governor Roland H. Hartley, of Washington, was filed with the Secretary of State on October 18.

The petition charges him with violating his oath of office and commission of wrongful acts. Committees of citizens, including labor union men, immediately prepared to campaign for 97,576 signatures to the petition, the number required for holding a recall election.

Recall proceedings against Governor Hartley are the direct outgrowth of the dismissal of Dr. Henry Suzzallo as president of the University of Washington by vote of the members of the University Board of Regents, appointed by Hartley.

The recall petition charges the executive with appointing members of the legislature to administrative positions for the "purpose of preventing the free expression of the will of the people through their representatives in the legislature."

Concerning appropriations and levies for state institutions, including institutions of higher education, it was charged that the governor "failed, neglected and refused" to enforce them and since their passage by the legislature "has attempted to prevent and has prevented" their enforcement.

The petition charged also that the governor unjustly removed from office three University of Washington regents and a trustee of the Cheney Normal School in order that he might fill vacancies with his own appointees.

Mr. Hartley became governor twenty-one months ago and, barring a recall, has twenty-seven months to serve. His first act after becoming governor was to request the legislature to adjourn, promising to make a survey of state institutions and to submit the results to a special session.

He visited the state institutions, including the university, and last January called the legislature into special session. A storm arose over his recommendations, principally for sharp retrenchments in expenditures for roads, for schools, especially the state's five institutions of higher education, and for reclamation of land. These policies of the governor were the principal issue in a primary election September 14. Of the ninety-seven Republicans nominated for the House, forty-one were supporters of Hartley, forty-nine were opponents and seven had been classed as neutral.

During the special legislative session Dr. Suzzallo took a leading part in efforts to increase appropriations for the five institutions of higher education beyond the point desired by the governor.

EDUCATIONAL NOTES AND NEWS

STEPHEN I. MILLER, educational director of the American Institute of Banking, has declined the presidency of the University of Washington to succeed Dr. Henry Suzzallo. Mr. Miller was formerly dean of the College of Business Administration of the university.

A DINNER in honor of Dr. Francis G. Blair, president of the National Education Association and superintendent of instruction of the State of Illinois, will be given at the Hotel McAlpin, New York City, on Saturday, October 30, preceded by a reception. Dr. Blair will make an address. Reservations may be made with Miss Christine McCormack at the Julia Richman High School, Sixty-seventh Street and Second Avenue.

PROFESSOR WILLIAM C. BAGLEY, of Teachers College, Columbia University, has been appointed a member of a sub-committee of four to advise the mayor's committee on teachers' salaries in New York City.

DR. JOHN J. TIGERT, United States Commissioner of Education; Dr. John W. Withers, dean of the School of Education of New York University, and Dr. Will Grant Chambers, dean of the school of education of the Pennsylvania State College, will be the leading speakers at an educational conference to be given at Bucknell University on November 5 and 6.

DEAN ROSCOE POUND, of the Harvard Law School, is to give the founders' day address at Swarthmore College on October 23.

PROFESSOR GILBERT MURRAY, of the University of Oxford, is delivering the Charles Eliot Norton lectures at Harvard University. He will give eight lectures on the general subject of tradition in poetry.

OFFICERS of the American Library Association, elected at the recent fiftieth anniversary conference, are: *President*, George H. Locke, Toronto Public Library; *first vice-president*, Joseph L. Wheeler, Enoch Pratt Free Library, Baltimore, Md.; *second vice-president*, Anne M. Mulheron, Library Association, Portland, Oregon; *treasurer*, Edward D. Tweedell, John Crerar Library, Chicago. The 1927 conference will be held at Toronto next July.

JOHN W. LOMBARD, superintendent of schools at White Plains, N. Y., was elected president of the southeastern section of the New York State Teachers Association at the recent New York meeting. Other officers elected are: W. C. Mepham, district superintendent of Nassau County, *vice-president*, and Thomas J. Wagner, superintendent of schools of Croton-on-the-Hudson, *secretary-treasurer*.

HERBERT W. OSBORN, controller of the City of Syracuse and president of the Onondaga County Council of Religious Education, was elected president of the New York State Sunday School Association at its recent meeting in Syracuse.

CARL RODEN recently celebrated his fortieth anniversary as librarian of the Chicago Public Library.

DR. CHARLES H. HASKINS, Gurney professor of history and political science at Harvard University, has been elected a corresponding fellow of the British Academy.

IT is reported in the daily press that Joseph Bourgeot, librarian for the Dawes Commission at Berlin, is the first Frenchman to receive a doctor's degree at a German university since the war. He has been awarded a Ph.D. at the University of Frankfort, writing a thesis on pacifism under Professor N. H. Cornelius, one of the best-known pacifists and philosophers in Germany.

FLOYD BLACK, formerly a professor in Robert College, Constantinople, is the new president of the Sofia American School. Work will at once begin on the buildings for the new school, which will be situated just outside the capital. The school will supplement the American schools at Samokov, established by the American Board of Commissioners for Foreign Missions more than sixty years ago.

PROFESSOR PERRY L. STEVENSON, for the past three years head of the department of mathematics at Westminster College, Utah, has been elected dean to succeed Dr. W. W. McKirahan, who has accepted the chair of philosophy at Muskingum College, Ohio.

OWING to the death of Professor William S. Foster and the resignation of Professor Karl S. Lashley, the following new appointments have been made at the University of Minnesota: Dr. Wm. T. Heron, of the University of Kansas, has been appointed assistant professor of psychology, handling courses in learning, animal behavior and space perception. Dr. Arthur G. Bills, of the University of Chicago, has been appointed assistant professor of psychology and will have charge of the elementary and advanced experimental laboratory courses. Dr. John E. Anderson, director of the institute of child welfare, has been appointed professor of psychology on a part-time basis and will give courses in the history of psychology and in abnormal psychology. Dr. Edna F. Heidbreder has been promoted from instructor to assistant professor of psychology. New instructors added to the staff are: Miss Mary Shirley, Carlyle Jacobsen and T. A. Langlie.

DR. A. C. HEILAND, representative in the United States of the Askania Verke, of Berlin, manufacturers of geophysical instruments, has been appointed professor and head of a new department of geophysics in the Colorado School of Mines.

PROFESSOR LAURENCE LEE will succeed Dr. William S. Knickerbocker, who recently resigned as assistant professor of English and registrar of the New York State College of Forestry, at Syracuse, N. Y. Dr. Knickerbocker leaves to accept a professorship of English at the University of the South, Sewanee, Tenn.

C. K. WRIGHT, formerly superintendent of the Belton, S. C., schools, is the new registrar of Winthrop College.

C. L. WILLIAMS, for forty-eight years a teacher in Perry County, Ohio, has retired. He was recently guest of honor at a meeting of former pupils, who gave him a purse.

MISS LENA BANKHARDT, a teacher in the Cleveland public schools for forty-six years, has retired.

ARTHUR BOWIE CHRISMAN, author of "Shen of the Sea," a book of Chinese fairy and folk tales, was awarded the John Newberry Medal for the most distinguished children's book of the year, by the American Library Association at annual convention at Atlantic City.

JAMES M. GLASS has resigned his position as Pennsylvania state director of junior high schools to devote his time to editorial work in connection with preparation of junior high school textbooks and publications.

J. M. DANIEL, who was superintendent of schools at Conway, S. C., is now South Carolina high-school supervisor.

IN the absence of Miss Jean Hamilton, dean of women at the University of Michigan, who has been granted a year's leave of absence, an experiment in student management is being worked out. The affairs of women students will be handled by a committee of advisers, thus removing the responsibility from one person and making the decisions the agreement of the committee.

MRS. EDWIN R. FISKE, a member of the Greenfield, Mass., school committee and a child welfare worker, has been appointed by the Massachusetts Parent-Teacher Association as field secretary for western Massachusetts. Mrs. Fiske's work will supplement what has been done for the past year by Mrs. Arthur B. Webber, of Worcester.

THOMAS NELSON PERKINS, of Boston, a graduate of Harvard College and of the Harvard Law School in 1894 and a member of the law firm of Ropes, Gray, Boyden and Perkins, has been chosen as president of the Harvard Alumni Association to succeed Thomas W. Lamont.

THREE new members of the board of trustees of Mount Holyoke College have been elected as follows: Elbert A. Harvey, member of the firm of Lee, Higginson and Company, Boston; William J. Davidson, president of the New England division of the Great Atlantic and Pacific Tea Company, and Henry P. Kendall, president of the Kendall Mills, Inc., Boston.

THOMAS W. HUNTINGTON, of San Francisco, formerly professor of surgery at the University of California, has been elected an alumni trustee of the University of Vermont, for a four-year term.

PROFESSOR FREDERICK R. GILLIS, of the department of education of Boston College, has been appointed chairman of the graduate committee of the club formed by undergraduates who attended Camp Devens last summer.

DR. AUGUSTUS O. THOMAS, president of the World Federation of Education Associations and commissioner of education of the State of Maine, has returned from his European tour.

PROFESSOR R. M. ELLIOTT, chairman of the department of psychology of the University of Minnesota, is making a world tour during his sabbatical leave. In his absence Professor Donald G. Paterson is serving as chairman.

PROFESSOR ERNEST L. TALBERT, of the University of Cincinnati. has received leave of absence to investigate adult education in Great Britain.

DR. H. L. RUSSELL, dean of Wisconsin's College of Agriculture, recently returned from a year's trip in the Orient, where he studied educational and agricultural conditions in Japan, China, Java, Australia, New Zealand, Hawaii and the Philippine Islands.

PROFESSOR HAROLD L. REED, of the department of economics of Cornell University, has leave of absence to enable him to direct a survey of the Federal Reserve banking system for the United States Chamber of Commerce.

DR. GEORGE GRANT MACCURDY, of Yale University, director of the American School of Prehistoric Research, attended the organizing meeting of the International Bureau of African Languages and Cultures in London on June 28 and 29, 1926, as a delegate from the division of anthropology and psychology of the National Research Council.

DR. WILHELM DORNER, supervisor of commercial education in Westphalia, Germany, recently visited the commercial high schools of New York City.

DR. GARRETT DROPPERS, of Williamstown, Mass., has been invited by a group of Japanese business men, his former students at Keio University, to make a visit of indefinite length to Japan. Dr. Droppers went to Japan in 1889 to teach at Keio. He was one of the first American educators to teach in a Japanese university, and remained there nine years. Returning to the United States, he served successively as president of the University of South Dakota, professor of economics at Williams College, member of the Massachusetts Civil Service Commission and minister plenipotentiary from the United States to Greece and Montenegro.

TALKS on college entrance requirements were given before the State Federation of Pennsylvania Women at Williamsport, Pa., on October 13 by Dean Raymond Walters, of Swarthmore College; Deputy Superintendent of Public Instruction James N. Rule, and Mrs. Abby S. Brown, headmistress of the Ogontz School.

DR. AMBROSE L. SUHRIE, of the School of Education of New York University, addressed the Indiana State Teachers' Association at Indianapolis on October 21. He is to speak before the Tennessee State Teachers' Association at Knoxville on October 29 and 30.

DR. AVERY W. SKINNER, director Board of Examiners, New York State Department of Education, gave an address on October 14, entitled, "Changing Emphases in Education," before the High School Conference for Superintendents and Principals at the University of South Carolina.

THE Iowa Chapter of Sigma Xi will hold its annual open meeting in the Senate Chamber of Old Capitol at the State University on October 20, when the retiring president, Bird T. Baldwin, will give the address on "Recent Research in Child Development." Dr. Baldwin will also speak on November 4 and 5 before the Kansas State Teachers Association, before the California State Teachers Association on December 20, 21, 22 and 23, and before the California Educational Research Association on December 21.

SPEAKERS at the recent Atlantic City meeting of the Playground Association of America included: John H. Finley, of the New York *Times*, former State Commissioner of Education, who presided; Professor Jay B. Nash, of New York University; President George Barton Cutten, of Colgate University; Colonel Theodore Roosevelt; Governor John G. Winant, of New Hampshire; Bishop Manning, of New York City; Director Charles English, of the Bureau of Recreation of the Chicago Board of Education; Superintendent of Schools William M. Davidson, of Pittsburgh; President James H. Maurer, of the Pennsylvania Federation of Labor; Dr. Eugene C. Gibney, of the Bureau of Extension Activities of the New York City Board of Education; Professor William G. Vinal, of the New York State College of Forestry; President Charles Platt, of the National Probation Association; President Frederick P. Keppel, of the Carnegie Foundation, and Professor Clark W. Hetherington, of New York University.

DR. FRANK P. GRAVES, New York state commissioner of education, in an address on "The Passing of a Prophet" before the Southeastern District Unit of the New York State Teachers Association on October 14, paid tribute to the late President Eliot of Harvard for his influence upon public school education.

THE death on October 5 is announced of Hugh W. Caldwell, superintendent of the schools of Cecil County, Md., for the last ten years.

MISS FRANCES H. MANNY, for twenty years

a teacher of modern languages in the Girls' High School in Boston, died on October 10.

THE death is announced of Iverson B. Summers, of the Summers College of Commerce, St. Louis, Mo., at the age of sixty-one years.

THE REV. DR. EDWIN ABBOTT, former headmaster of the City of London School, died in London on October 13, aged eighty-eight years.

THE Board of Education of Chicago has approved plans for spending $10,000,000 to erect eleven school buildings.

THE Board of Education of New York City has approved plans for a school in South Jamaica to cost $583,000, and voted to reorganize the school lunchroom system so as to make it self-supporting. It increased salaries of parental school principals and heads of practice schools to a minimum of $3,750 and a maximum of $4,750, "because of their large responsibilities." On the question of school lunch rooms, the board asked Superintendent William J. O'Shea to have a report prepared on the entire question. The board hopes to organize lunch rooms in schools where they do not exist. Arthur S. Somers, a member of the board, pointed out that the lunch rooms now cost the city $80,000 a year and that lack of a lunch room is a hardship to teachers and pupils in some schools. It was voted to return to the city $843,942.55, representing unencumbered balances of appropriation accounts from 1919 to 1923, inclusive, which are no longer needed for their original purposes. The Board of Estimate will be asked for $1,000,000 for the acquisition of school sites.

A BUDGET calling for $2,257,000 for maintenance for the two-year period beginning July 1, 1927, and a bond issue of $2,383,000 for building during the same period, has been adopted by the executive committee of the board of trustees of the University of North Carolina. The largest item on the new building program is $831,000 for a library, which is planned as the center of the university buildings.

CASH gifts to Columbia University aggregating $155,358 have been announced. There have been in addition several contributions to the scientific and artistic equipment of the university.

PUBLIC school teachers of Throop, Pa., have joined in an arrangement which provides life insurance protection of $3,000 for each of them, this coverage being made possible through a group insurance policy issued by the Prudential Insurance Company. Under the same plan the superintendent is eligible to protection of $7,500, the entire coverage amounting to $181,500. This policy is of the contributory type, with the teachers paying part of the premiums. This is one of ten group policies recently issued by the Prudential in various sections of the country.

THE New York *Herald-Tribune* reports that the public schools of Atlanta, Ga., may be forced to close for the rest of 1926, unless a plan is successful in raising $500,000 to cover the cost of operation. The revenue is exhausted and the salaries of teachers for September have not been paid. The teachers have remained on duty, however, as the mayor, members of city council and business men have sought to adopt a plan to raise the needed revenue. Under the city charter the city can not borrow funds which it can not pay back before the end of the year, and all funds to be received from all sources this year already have been allocated. The Atlanta Clearing House Association, which includes the five largest banks in the city, has refused to lend the money to the city or the schools on a moral pledge from the city council that the funds will be repaid in 1927. The banks also have refused to lend money against certificates of salaries, which it was planned to give teachers in lieu of money. They point out that these also are illegal, and any taxpayer could stop payment on them by appealing to the courts. The banks for the last several years have been lending the city sufficient money to tide the schools over, and each year have issued warnings that they would not continue to do so. The Board of Education has agreed to allow a specially appointed committee of citizens to supervise the preparation of its budget next year and have made proposals to make a final appeal to the banks.

IN the issue of SCHOOL AND SOCIETY of September 4 a statement was made with regard to the situation that developed in Oak Park after the expulsion of a number of boys from the

Oak Park High School because they had been members of a fraternity. It was said that a petition had been circulated and signed by a large number of citizens of Oak Park asking for the dismissal of the principal, Mr. McDaniel. A correspondent now writes: "The petition was not circulated; it was merely threatened. In the second place, it would not have received any large support if it had been circulated. In the third place, the attack on Mr. McDaniel failed absolutely to materialize. The school has been greatly benefited by the method that has been adopted by Mr. McDaniel and his board in dealing with this case. The state law of Illinois is perfectly explicit in the matter. It was broken by the boys and their parents. They are now fully aware of the fact that they ought not to have done what they did and they are thoroughly repentant. Mr. McDaniel is much stronger in the community and in the school than he has ever been at any time."

IT is reported that nine tenths of the children who should by law attend the grammar schools of Spain will be unable to gain admittance on account of lack of room. This serious condition is not limited to the elementary schools, but extends to the high schools and universities. More than half the university students must stand throughout the lectures because there are not enough seats.

THE president of the new American College, which is to be erected near Sofia on a 120-acre tract, has definitely fixed the location of the buildings and has given orders for beginning the first constructive work. Every branch of the Bulgarian Government is heartily cooperating in the work. The American primary schools in Sofia have just begun the school year in the new social settlement, the first one to be started in the Balkans.

A NEW law which went into effect in Hungary recently regulates the establishment of elementary schools in the outlying agricultural districts of that country. Such schools must be established wherever it can be proved that there are twenty families or thirty children of school age living within a radius of not less than one and a half kilometers and not more than four kilometers, and where no school capable of accommodating all such children already exists. The Ministry of Education is to supervise the building operations and the subsequent running of the schools and the instruction. Inhabitants of the district who own means of transportation may be required to assist in the transport of the children to and from school. Where it is impossible to bring the children in every day, arrangements are to be made to board them.

DISCUSSION

ANONYMOUS GRADING

IT is very difficult for a teacher to judge a student solely on the basis of his achievement. The true-false, completion and other objective tests tend to bring about this sort of judgment, but they are far from being universally accepted or used. Most teachers still depend on the essay type of examination, a type which has its good points, but which unquestionably lends itself more readily to subjective bias than any other form of examination.

Part of the trouble arises when one attempts to estimate in differing feeling states the value of similar replies to a given question. Some teachers grade question number one through an entire set of papers and then return to question number two and so on through the set in order to avoid doing an injustice to a student whose paper is read when the examiner is somewhat indisposed, fatigued or in a hurry.

It is this sort of bias which has received most attention from those who advocate objective tests to replace the essay examination. But this is only one source of bias and of less importance in many cases than that which arises from the fact that the teacher usually has the image of the student whose paper is being read before him as he reads. Because of this image and because teachers are only mortal a student's mark is likely to be based largely on the teacher's recollection of how he sat up in class, the appearance of interest which he manifested in the discussions or lectures, the number of black marks in the record book indicating his absence from class and a number of other things which may or may not indicate that the student has failed to master the subject. It is not to be in-

ferred here that the student's grade should not be based partly on the way he cooperates to make a class a success, but it is contended that this factor in grading should form a separate judgment.

There are a number of reasons why a student's achievement should be judged apart from his personality and deportment. In the first place teachers are often unduly severe on the student who appears to be wool-gathering in class, who visits occasionally with his neighbor or who absents himself without adequate excuse. Sometimes a student of independent mind wants to argue in class and proves a difficult or impossible subject for the teacher to convince or he may actually succeed in convincing his classmates that the teacher is wrong. Such behavior is often taken by the instructor as an affront to his dignity, and the judgment rendered on the student's work is likely to be something of a sentence as well as a judgment. Students who are naturally unprepossessing in appearance, whose personalities are not vigorous or whose enmity is not apt to make the teacher uncomfortable are more likely to receive a failure when they deserve it than the pleasing, aggressive type of student, particularly if such a student happens to be a class leader.

On the other hand, students often confess that they have "worked teachers for grades by faking attention in class, hand-shaking after class, and similar ancient devices for raising marks. There are of course teachers who are little influenced by the dour glances of the student who is disappointed in his grade and who are not very susceptible to the blandishments of the bluffer or the influence of the one whose father is the leading member of the school board. But most teachers are. Consciously or unconsciously they have their favorites and their victims, the former those they like—or half fear—and the latter those they dislike or concerning whose opinion they are indifferent.

Even if a teacher were all-wise and were unmoved by fear or favor in marking papers, he would still be accused by the poorer students of "having it in for them." None of us like to shoulder the blame for our own weaknesses if we can transfer them to the shoulders of another, and teachers often have the experience of being disliked by a weak student who has been treated more than fair. Disgruntled students in a class-room affect unfavorably the work of most teachers and undoubtedly influence for the bad the general morale of a class.

In order to avoid the temptation to be easy and the accusation, just or unjust, of being unfair I have resorted for a number of years to an anonymous system of grading whenever I use the familiar essay type of examination. I find that the chief advantage lies in the improved morale of the class, the absence of resentment against the instructor when low grades are received, and an improvement in the work of students who have been getting by on their personalities rather than their work. Briefly the plan is as follows:

I secure a pad of paper, the sheets of which are two or three inches square and tear off as many slips as there are students to be tested. I then write a number on each slip, beginning with one and continuing up the scale until all the slips have been numbered. As I come into the class-room prior to an examination I hand these numbered slips to some student. He chooses one, and all the other students pick out a number as the pack is handed along. In addition I usually furnish plain paper for the examination. Each student then writes the number he drew at the top of his examination paper but does not put his name on it. Instead he writes his name on the slip of paper. These slips are then handed to some student, chosen by the group.

When the examination papers are read and the grades are recorded opposite the numbers which are to identify them, I hand the papers back to the trustee of the slips, who distributes them to his classmates. At the same time that I present him with the papers, he presents me with the slips. I check the slips against my marks and enter the grades in my roll-book opposite the proper name.

This may sound complicated, but it is quite simple when one gets the hang of it. It takes only a minute or so of time for a class of thirty or forty students. I use a trustee for the slips for two reasons. I found by experience that some students are absent when the papers are returned, and that two or three spells of recording are necessary if one depends on each student to return his own slip at the time he receives

his examination paper. Some students lose their slips and forget their numbers, and this causes a certain amount of confusion. If one person is made responsible he usually takes it seriously, and I have never yet had such a one fail me when I was ready to return a set of papers.

F. W. CLOWER

STATE COLLEGE OF WASHINGTON,
PULLMAN, WASHINGTON

QUOTATIONS

EDUCATION IN MEXICO

UNDER the Calles régime, John Dewey reports in *The New Republic*, Mexico is making more than progress in popular education. Something like an educational revolution is under way. The agricultural population, long utterly neglected, is receiving the government's major attention. There was not a single rural school under Porfirio Diaz. There are now 2,600, of which 1,000 were opened last year; another 1,000 are planned for the current year. Inasmuch as the Indian peon makes up 80 per cent. of the population, both the possibilities and the difficulties of the task are obvious. If an "integrated" sense of nationality is to be built up in Mexico, it must be, thinks Professor Dewey, through the creation of a system of rural schools.

More than in the statistics of the new rural schools Professor Dewey finds himself interested in their aims and methods. These are distinctly modern. The trend is all toward the new "organic" curriculum and pedagogy, which seek an intimate union between the school and the communal life. Professor Dewey confesses to a "pet" idea that the so-called backward countries have a great chance educationally. "They are less hampered by tradition and institutionalism than are countries where schools are held by customs which have hardened through the years." His faith is revived by Mexico's rural schools.

For the Mexican people the modern educational theory, with its emphasis on social motive, development of individual initiative, use of the "project method," and the rest, is certainly superior to the former methods of rote, memory development and ensemble recitation; even as it obtains all over the Mohammedan world and in China. But it is not so plain that "organic" education is better than our own traditional public school methods for a people attempting the first painful steps in democracy. The basic aim of the founders of free public education in the United States was to train for citizenship, and even before that to equip the masses for defending their liberties against usurpation. That need would hold for all politically backward countries.

Americans, secure in their institutions to the extent even of being a bit tired of some of the responsibilities of democracy, may well enough be thinking of something beyond the old "mind training." But the Mexican peon, like the Russian mujik, could do with a quarter of a century of intensive drill in reading, writing, spelling and playing with ideas. In order to read newspapers, hold public meetings and conduct political campaigns the old traditional education is still essential. It may be proper enough for the child of well-to-do parents in New York City to be protected against "institutionalism" and made safe for his own individuality. But Mexico has plenty of individualism running loose and could make excellent use of a bit of institutionalism. Porfirio Diaz would have been glad enough to let the Indians have schools for basket weaving and pottery. He did not want them to read newspapers or develop an "intellectual proletariat."—The New York *Times*.

BOOKS AND LITERATURE

The Fine Art of Writing for Those Who teach It. By H. ROBINSON SHIPHERD, Macmillan, 1926, xiii + 358 pp.

OF the making of books that deal with composition there is no end; and one largely rephrases the ideas of another. But here the subject is presented from a fresh angle. Professor Shipherd, of Boston University, has written a volume for instructors of composition rather than for pupils, and his title might properly read, "The Fine Art of Teaching." His are the lucubrations of a seasoned professor who waxes moral and mellow in advising his younger colleagues as to the nobility and joy of their job. With something of the unction of a Billy Sunday of the chair he descants upon "the miracle of language," and upon language-mastery "as a means to the development of a strong char-

acter," and upon the fact that each of us is "an Ariel shut within a Caliban—a something spiritual beating gossamer wings of aspiration and escape within the dim cavities of a clodlike hulk of blood and bones." He finds in our very desire to communicate, as well as to express, an evidence of our Godlike altruism, even though we may wish to communicate for self-regarding ends. His own talk abounds in Scriptural tags and phrases. He assures us that "the teacher of composition takes his little ones into the workshop of the master, into his secret, silent hour, and stirs within them the creative spirit—in which we believe we are likest God"; and, with the solemnity of an undertaker, he adds that, "much is required of us, indeed; but to us much is given." To the teacher, he ministers tender comfort, saying: "You are not taskmasters; you are mental and spiritual gardeners, nourishing, watering, fostering the most exquisite and the most miraculous growths it is ever given us to see; and God gives the increase."

If the reader of Professor Shipherd's volume can but bravely wade for thirty pages through these shallows of Evangelical sentiment, he will be repaid by rising to higher and firmer ground. He will find, especially in the section entitled "Methods," a hundred valuable suggestions based upon dry common sense and the results of years of practical experience in teaching freshman composition. True, the writer still speaks on occasion, with bland paternal indulgence, of "our precious youngsters," and bids the teacher keep fit for his arduous task "with the stimulating bath of mornings and the relaxing bath of nights." For the most part, however, he drops this big brother, Y. M. C. A. tone, to offer in a natural voice capital objective advice on the importance of such matters as conferences, the recitation as opposed to the lecture, the spelling-match, the note-book, the exercise written in class, oral composition, translation and revision. He presents reproductions of various drafts of the same passage by Joseph Conrad to illustrate graphically the way in which a careful writer will work over his own manuscript. He tells the teacher how to grade and file themes, to keep records, to enforce rewriting and collateral reading, and reading aloud in class, and to employ a "black list" of proscribed faults which, if persisted in beyond a certain date, will entail doom to the offender. In discussing each of the four traditional "forms of discourse," Professor Shipherd concedes the fact that all these names and distinctions are merely artificial and pedagogical, but he considers them tersely and sensibly, explaining, under the head of "Description," for example, the point of view, the dominant tone, skilful selection, the true order, swiftness and vividness. He holds that term examinations are a task of supererogation in any course in composition. He advocates absolute sincerity in expressing likes and dislikes, and he is particularly sage in his remarks upon student honor, noting that "for young people to appropriate ideas from books and other writings is for them quite normal," and that the teacher, accordingly, must quietly talk to these innocent delinquents "about the scrupulousness all decent people observe towards other people's property rights in ideas."

Not the least valuable sections of Professor Shipherd's volume are its summary of statistics concerning the teaching of required composition for freshmen in seventy-five representative colleges of the United States and its quotations from more than a hundred and fifty authors, revealing their views upon the art of writing. A number of such excerpts come from letters addressed to the author by persons of literary distinction. Altogether, every teacher of composition may be grateful to Professor Shipherd for this wise, optimistic, informing and highly moral treatise which gives assurance that God's in his Heaven and all's well with the freshmen.

FRANK W. CHANDLER
UNIVERSITY OF CINCINNATI

REPORTS

LIBRARY SCHOOLS[1]

WHEN the president and the secretary of this congress asked for a report on schools for librarians, they made a suggestion about the character it should take. In asking that the

[1] Report presented before the International Congress of Librarians and Booklovers, held at Prague from June 28 to July 3, 1926.

report be international, so far as possible, in its point of view, they recognized the fact that the education of librarians is a problem of fundamental importance which can only be satisfactorily solved when the best thought of librarians of all countries is brought to bear upon it.

When we consider the education of librarians, we are faced with a double problem as to the curriculum. It is essential that every librarian have first a knowledge of the subject-matter contained in manuscripts, books, periodicals and other written and printed material with which he is to work, and second, a knowledge of the technical methods by which libraries are made available to the public.

Special schools, a few of very ancient standing, have existed primarily for the purpose of training librarians and archivists, but the natural tendency of these schools has always been toward scholarship. The idea of technical methods is of far more recent origin. Thus it was only in 1887 that the first technical library school was founded. Others followed and to-day professional and technical courses are in existence in some form in Belgium, Canada, Czechoslovakia, China, Denmark, England, Germany, Holland, Italy, Japan, Portugal, Russia, Sweden, Switzerland and the United States. There have also been summer schools in Bulgaria and in Finland. This list of countries is perhaps not complete and I shall be grateful if librarians who know about training agencies in other countries will be good enough to help in completing it.

It was perhaps inevitable that for a time the tendency in these schools should be to overestimate the importance of professional technique at the expense of scholarship.

It is only within the last few years that we have come to realize that any plan for the education of librarians must find the means of combining the two points of view. Not until this has been accomplished can we hope to realize the full measure of service which it will be possible for libraries to render when they are administered by librarians possessing broad scholarship, international culture and efficient professional methods. Good administration presupposes thorough understanding of all the work that goes on in the library. No decision can be wisely taken even on a small technical matter unless the administrator, apart from his scholarship, has a thorough understanding of the aims of libraries and of the technical work to be carried out under his direction.

Dr. Tai, librarian of Tsing Hua University, Peking, China, has recently published an interesting historical study of the origin and development of librarianship and professional library training schools. Dr. Tai is chairman of the executive board of the Chinese Library Association; he received his professional training in an American library school, and this book, entitled "Professional Education for Librarianship," is his doctor's thesis. It contains selective bibliographies and was published by the H. W. Wilson Company, of New York, in November, 1925. In view of this I shall limit my report so far as possible to the present status of the question and in order to discuss the subject in some detail I shall take one country as a type.

I am choosing the United States because recent investigations made by the Board of Education for Librarianship of the American Library Association have gone far in crystallizing thought on the question and in marking progress and also because so many different countries have for years been sending students to American library schools.

It will be necessary for me to summarize briefly the library situation in America to-day in order to make clear the definite training problems we have to meet. We have many types of libraries, and many types of service to be rendered by these libraries and our professional schools, if they are to be successful, must make both their entrance requirements and their courses of study so comprehensive that the students they send out will be able to take positions, according to their gifts, in every kind of work which these different types of libraries have to offer.

Briefly, then, we have three principal types of libraries—university, special and public. The university libraries require both administrators possessing broad scholarship and professional library training and specialists capable of directing the departmental libraries of

the various faculties according to the best professional library standards. The special libraries, many of which are really research bureaus in industry and commerce, need librarians who, in addition to knowledge of the special field in question, possess to a high degree skill in professional technique.

Our public libraries are supported by taxation and maintained respectively by our national, state, county and municipal governments. The municipal libraries, which are generally known simply as "public libraries," are somewhat unique in their organization, particularly in large cities where they contain not only departments for highly specialized research work but also general reading rooms and children's departments.

The central building of the New York Public Library, for instance, contains a general bureau of information the staff of which, graduates of universities and of professional library schools, are always ready to help the public in the use of catalogs, indices, bibliographies, etc. Every day hundreds of people come to this bureau for aid in reference and research work of all kinds. In addition to the general reading room, where the public has direct access to twenty-five thousand volumes on open shelves, there are special research departments for manuscripts, rare books, history, genealogy, pure science, technology, social, economic and political sciences, Oriental languages and literatures, Slavic languages and literatures, Jewish language and literature, current periodicals, newspapers and books for blind readers. There is also a lending section with a large number of librarians in constant attendance and a children's department, in charge of librarians who have made a special study of child psychology and children's literature.

Under the same administration, there are more than forty branch libraries organized in different parts of the city in order that every inhabitant may have a library within easy distance of his home or of his business office.

Each one of the branch libraries is a miniature of the central library without, of course, the special research departments. The central library has a union catalog of all the books in the branches and also an extension department that sends small collections of books into sections of the city which are not adequately served by branch libraries.

In smaller cities than New York, the public libraries contain fewer research departments, but there is always a reference section, a well-organized lending service and a children's department. Almost always there is some extension work. Small collections of books are often sent to schools, clubs, hospitals, social settlements and factories.

For our public libraries, then, the library schools must train not only specialists in research work but also children's librarians and a great many workers who have a good general knowledge of books and marked personal ability in dealing with the public.

Since one of the tendencies in modern education is to encourage young people to go themselves to books for information in the preparation of their school work, cooperation between schools and public libraries is very close. The increasing number of well-organized libraries in secondary and elementary schools is creating a demand for specially trained school librarians.

The county or regional libraries which have been developed recently in the United States seem now to offer the best solution of the problem of library service to small communities and rural districts. Each county library is in charge of a professional librarian who administers a central collection of books and drives through the county at regular intervals in a book automobile to distribute books to the villages and small rural centers which no longer have to struggle to maintain local libraries with inadequate funds.

With all these kinds of libraries and the varied activities of each of them, it is obvious that there are many technical problems, both large and small, which library school students must be taught to meet. It is these problems that have determined to a large extent the curricula of our library schools.

Important library problems should not be solved in the light of the present alone and therefore the history of libraries must be taught.

It is necessary for students to know the laws and regulations which govern libraries in their

own country, of course, but also in other countries. When an opportunity comes for securing better legislation librarians must be ready to seize it.

The first question of internal administration which arises concerns the choice of books for the particular type of library and the particular community in question.

Students must be taught how to survey a community in order to learn its needs and to determine clearly what the aim, the scope and the various services of the library should be.

Books themselves must be evaluated; they must be judged both critically and in comparison with other books on the same subject. Their authors, their publishers and their subject-matter must be known and considered. Then there is the material side of book selection. Students must know the history of bookmaking and the modern processes of book production in order to recognize good editions, good paper, type, binding, etc.

When it comes to book buying, students must be familiar with the book trade, must know how to buy new books, second-hand books, auction books, foreign publications and periodicals, and they must be sure about proper discounts and accounting methods. Then there are questions of exchange between libraries, of gifts and of copyright laws. Librarians must know the resources of many libraries so as to judge whether books may be obtained by inter-library loan and whether photographic copies of manuscripts may be procured, etc.

After books are received, they must be arranged on the shelves, according to some system of classification, and there must be catalogs prepared according to methods which are logical, uniform and intelligent. Students who are to become library administrators must not fall into the error of the librarian of a large public library in the United States who believed that any one of average intelligence could be employed as a cataloger without having had professional training. After twenty years or more, this library was spending $1,800 a month for nothing but salaries of catalogers who spent their entire time correcting mistakes in the catalog.

The reference and research work of a library is one of its chief reasons for existence, and in this work the catalog of the library is of course the most important tool. It is used constantly both by the public and by the librarians who assist the public. It must be accurate and logical and so far as possible the contents of important collections must be analyzed by subject and often by author. The cataloger should not hesitate to take time to make fifty different cards for a single book if necessary, but he must discriminate and not fill the catalog with useless entries.

Students who are to become catalogers must, then, possess broad general culture and must understand not only the technique but the science of cataloging. They must never lose sight of the practical use which is to be made of the catalogs they are preparing.

What is called reference work in the United States, and is often called "documentation" in Europe, makes very heavy demands upon library schools. Not only must students learn to do work of the type to which I referred in speaking of the New York Public Library, but they must also be able to compile lists of books, pamphlets and magazine articles on any subject within the scope of the library and they must follow the trend of current book publication in order to keep up to date in their work. For this general reference work and the reference and research work of special departments in libraries of different types the library schools must furnish graduates of high scholastic attainment and of marked ability both in applying professional library methods and in dealing with people.

Lending work is studied in all its phases, because library school students should understand the importance of establishing a liberal policy and a convenient system. They should know how to keep statistics, how to keep *au courant* of new publications and also the best ways of assisting readers.

Students must be familiar with the theory and practice of children's library work and of extension work through branch libraries, county libraries and state libraries.

They must consider ways of making the library's resources known to the public by publicity methods which are both dignified and effective.

Their attention should be called to the possi-

bilities of visual instruction through the use of exhibitions, lantern slides, etc., and they must know how to organize lectures in their libraries.

After they have studied all the different types of work that go on in libraries, they must be taught how to plan buildings which will be both convenient and attractive to the public as well as economical in administration.

These are some of the questions with which American library schools have been dealing and great care has been necessary in preventing technical details from obscuring the larger aspects of library administration. Both libraries and library schools have developed little by little by a process of evolution that has extended over a period of years. The American Library Association was founded in 1876, just fifty years ago. Its early meetings were given over, to a large extent, to discussions of technical problems in library organization.

These problems have now been solved in such a way that technical methods are essentially uniform throughout the country. The American Library Association is no longer confronted with the necessity of discussing methods and is turning its attention toward the solution of the larger problems in library work. The most pressing of these is the question of education for librarianship. This is so both because we realize that our schools are not yet adequate and because the great development of libraries in the United States at the present time is creating positions for which there are not enough trained librarians. It is said that seven thousand will be needed each year for new positions in school libraries alone and there has been a shortage of librarians in many other kinds of work.

In 1923 the American Library Association appointed a temporary library training board to investigate the field of library training, to formulate tentative standards for all forms of library training agencies and to devise a plan for accrediting such agencies. Thus, the desire for better educational conditions came from librarians themselves.

In 1924 the board presented the following findings:

(1) That the growing importance of libraries as productive factors in community life and as mediums for the diffusion of knowledge has created a demand for librarians with trained minds of a high order;
(2) That the agencies now offering education for librarianship are unable to supply a sufficient number of persons to meet the demands; and, especially, to fill positions requiring highly specialized preparation and the qualities of leadership;
(3) That existing library schools are inadequately financed;
(4) That there exists great variation in entrance requirements, curricula, faculty qualifications and library facilities in those agencies purporting to offer the same quality of education;
(5) That there are no facilities for preparing teachers of library science;
(6) That there is evident lack of a uniform nomenclature, as well as of a uniform system of credits such as is generally recognized in collegiate practice;
(7) That standards for education have been established by individual agencies, or small groups of agencies, but that, in general, no definite qualifications for library work have been required by the profession at large;
(8) That there is not sufficient cooperation among training agencies of different types to secure a correlation of the work given by them;
(9) That there exists no organization within or without the profession which has authority to promote and to evaluate the several grades of education for librarianship.

As a result of these findings, the board recommended the creation of a permanent official body which would help library educational agencies to develop their resources and to fulfil satisfactorily their function of meeting and even of anticipating the changing needs of library service.

A permanent board of education for librarianship was created by the American Library Association and its 1924–25 report summarizes as follows its first year's work:

The board has
(1) Made for future guidance a survey of library schools in the United States;
(2) Assembled data regarding education for librarianship, thus forming the nucleus of a collection of important information not previously available;

(3) Secured a ruling from the Association of American Universities regarding degrees to be conferred upon completion of library curricula;

(4) Formulated (for the consideration of the council) minimum standards for various types of library schools;

(5) Laid out a program of future work which includes a study of all types of library training: summer courses, training and apprentice classes, courses for school librarians, and correspondence courses; and a study of library work which will set forth the needs of the service and form a scientific basis for curricula building.

Among these many agencies, it is only the library schools which train professional librarians. The other courses prepare workers for secondary positions.

Summer Library Courses are of four types, which are described as follows by the Board of Education for Librarianship:

Types one and two are courses for which credit is given toward the completion of a professional curriculum, and are governed by the minimum standards for library schools.

Type three is for summer courses in library science for which credit is given by normal schools, colleges and universities toward the completion of an academic curriculum.

Type four applies to summer courses designed to prepare librarians for small libraries and assistants for medium-sized libraries. These standards vary from those for the three preceding types in content and number of courses suggested. The content of each course is to be specifically adapted and limited to the problems of small and medium-sized libraries.

Library Training Classes and *Library Apprentice Classes* are defined as follows by the board:

Training Class: A regularly organized class conducted for a definite period of time for the purpose of supplying the library with general assistants and not of supplying the profession at large. Entrance to the class is gained by competitive examinations in cultural subjects, but graduates of academic colleges and universities may be accepted without examination. A "training class" implies a classroom with desks, equipment, textbooks, and a standardized library for a laboratory. More than 50 per cent. of the time of the class is devoted to formal instruction, with problems, on all branches of elementary library science. Examinations are given on the material included in the course of study.

Apprentice Class: A few students received at one time and required to do the actual work of the library under supervision of department heads or other experienced workers. The formal instruction is much less in amount than is this practical work and is based entirely on local procedure. All the students may or may not learn all processes and there may or may not be an entrance examination and a final test.

Individual Instruction: Similar to apprentice class, but with a less amount of formal instruction.

Courses for school librarians in normal schools and teachers' colleges are designed to give some knowledge of library work to future teachers who may be called upon to take charge of school libraries until the time when the schools can maintain thoroughly organized libraries in charge of professional librarians.

Library courses, correspondence and extension: The development of such courses has been slow in the United States because librarians feel that revision and class discussion of problems, particularly those in classification and cataloging, are essential. One correspondence course, however, is being directed by a former director of a library school and the Board of Education for Librarianship is studying the question.

Minimum standards for different types of library schools have been outlined as follows by the Board of Education:

UNDERGRADUATE LIBRARY SCHOOLS

Junior Undergraduate Library School:
Connected with an approved library, college or university;
Requires for entrance one year of college work;
Grants a certificate.

Senior Undergraduate Library School:
Connected with an approved degree-conferring institution;
Requires for entrance three years of college work;
Grants a bachelor's degree.

GRADUATE LIBRARY SCHOOLS

Graduate Library School:
Connected with an approved degree-conferring institution;
Requires for entrance a college degree;
Grants a certificate.

Advanced Graduate Library School:

An integral part of a university which meets the standards for graduate study laid down by the Association of American Universities;

Requires for entrance a college degree and the successful completion of an approved one-year professional curriculum;

Grants a master's degree for the satisfactory completion of one year of further professional study, and the Ph.D. degree under the university regulations governing the granting of that degree.

This is only an outline. The standards include also requirements regarding the academic and professional preparation of the teachers, the number of teachers there should be for each group of fifty students, the academic preparation which students must present for entrance, the content and length of the curriculum, the diploma or certificate to be granted, etc. In addition the board has stipulated that students must have access for study and practice work to libraries approved by the board.

In April, 1926, the board accredited American library schools on the basis of its minimum standards. The result showed:

Eight junior undergraduate schools;
One senior undergraduate school;
One school including two separate courses of which one ranks as a senior undergraduate school and one as a graduate library school;
Four graduate library schools.

In May, 1926, came the announcement that the New York State Library School, a graduate library school which has been conducted in Albany since 1889, will move to Columbia University and that the Library School of the New York Public Library will be combined with it. Work will be on a graduate basis.

Announcement was also made of the opening of a new graduate library school at the University of Michigan.

It has been announced also that at the University of Chicago an advanced graduate library school will be organized according to the recommendation of the Board of Education for Librarianship. This school will follow the board's suggestions in aiming to prepare administrators of large libraries, experts in highly specialized fields and library school teachers. Professors will be given a year of preliminary study before students are received and some of them will perhaps spend the year in European study.

In summarizing, as I have done, the status of library training in the United States, I have tried to indicate simply that the question has been studied and that some progress has been made. There must be further study and perhaps many changes before any general plan can be accepted as final. If this is true of one country, how much more is it true when library training is considered from an international point of view.

The Paris Library School or l'École de Bibliothecaires, which is conducted under the auspices of the American Library Association, is daily acquiring experience in training an international group of students. Its professors represent several countries, and seventeen nationalities are already represented among its graduates.

The school offers to experienced American librarians, who have already completed at least a year's professional course, or to librarians from other countries whose preparation has been of a similar nature, an opportunity to come to Europe for advanced study in some special field. These students will register with the Paris Library School, whose professors will guide their study and indicate to them the European universities or schools which offer the best opportunities for advanced work in their special subjects.

The regular course of the Paris Library School gives a basic training in technical library methods.

Since our classes are made up of students from so many different countries, we try to give them an understanding of the principles on which library work is based and of certain practical methods of working which they will be able later to apply to specific problems in the libraries of their own countries. We group our work into three main courses.

The book course includes the history of printing and book illustration, modern methods of book production and a study of the book trade. This part of the course is followed by a study of bibliographies and reference books, and the

students work out practical problems which familiarize them with reference and research methods. Great emphasis is laid on the principles of book selection for libraries of different types.

The question inevitably arises: How can we familiarize students from France, Czechoslovakia, Turkey, Palestine, Norway, Belgium and other countries with the books that they will use in their own countries? We do not attempt to do this in detail, but we give our students, subject by subject, the best bibliographies and reference books, regardless of the language in which they are written. French books necessarily receive a large share of attention because of their greater accessibility in the libraries in Paris.

A second course deals with classification, cataloging and other technical work which is necessary in the preparation of books for use in libraries. The Dewey decimal classification is taken as a basis in the course, but a comparative study is made of other systems. The same principle is applied in the teaching of cataloging. At the end of the year, students are able either to decide upon a classification and install it in a library or to adapt their work to systems of classification or cataloging which are already in use.

A third course, on the organization and administration of libraries, covers the history and development of libraries, library law, library architecture and the principles of internal administration of libraries. In this course, students are shown how the work of the other two courses fits into the general scheme of library organization.

The Paris Library School conducts also a brief summer course, generally six weeks in length; it is planned to meet the needs of librarians in function in small libraries and of people employed in allied fields, such as publishing, bookselling, teaching or social work; a few students who wish to prove their ability to follow the longer course are also admitted.

We plan not to confine the work of the school to teaching alone, but so far as possible to study library work and library training in other countries.

Last fall I came to Prague with the director of our school, Miss Sarah C. N. Bogle, who is also secretary of the Board of Education for Librarianship of the American Library Association. We came for the purpose of visiting the library school and the libraries and in order to inform ourselves about the interesting work in adult education which is being done in Czechoslovakia.

Miss Bogle hopes to have a study of training for librarians in Europe made under the auspices of the school by an experienced American librarian and later a similar study of library training in the United States by an experienced European librarian. A comparison of these two reports should bring conclusions which will be useful in the further development of library training.

The work of the International Institute of Bibliography in Brussels, of the Concilium bibliographicum at Zürich, of the Library of the League of Nations, of the Section on International Relations of the American Library in Paris and of the recently created International Institute of Intellectual Cooperation all point the way toward international cooperation, in research work. We are realizing that research work in the twentieth century can rarely be done satisfactorily without the use of publications and often of libraries in a number of different countries.

If we can do anything through our library schools to standardize methods internationally in a way that neither changes radically nor hampers the present organization of libraries within the different countries, we shall be furthering research work and intellectual cooperation.

We can not go very far in this direction until we all know more than we know at present about library conditions in the different countries.

A great deal of attention has already been given to the question of exchange of library school students, and this is a good thing, provided the students are librarians who have already had enough experience to be capable of judging wisely.

An interesting suggestion about the exchange of experienced librarians has recently come from the librarian of a branch in Berlin; she came to us in Paris to ask if we could find a librarian from another country, preferably from France,

who would be free to exchange positions for six months. We referred the question to the president of the French Library Association, Monsieur Gabriel Henriot, who has sent a letter from his association to a large number of librarians in the hope that the right person will be found for this exchange. When library training conditions become better known, the exchange of library school professors will also offer interesting possibilities.

It has seemed to librarians in a number of different countries that the entire question of exchange is worthy of consideration. Therefore, Mr. President, I beg to present to this congress the following resolution:

Be it resolved that the International Congress of librarians and booklovers assembled in Prague from June 28th to July 3rd, 1926, considering the question of exchange between countries of librarians, library school professors and students worthy of study as a step toward better correlation of library training, request the President of the Congress to refer the matter to some permanent committee organized in the interest of international library development.

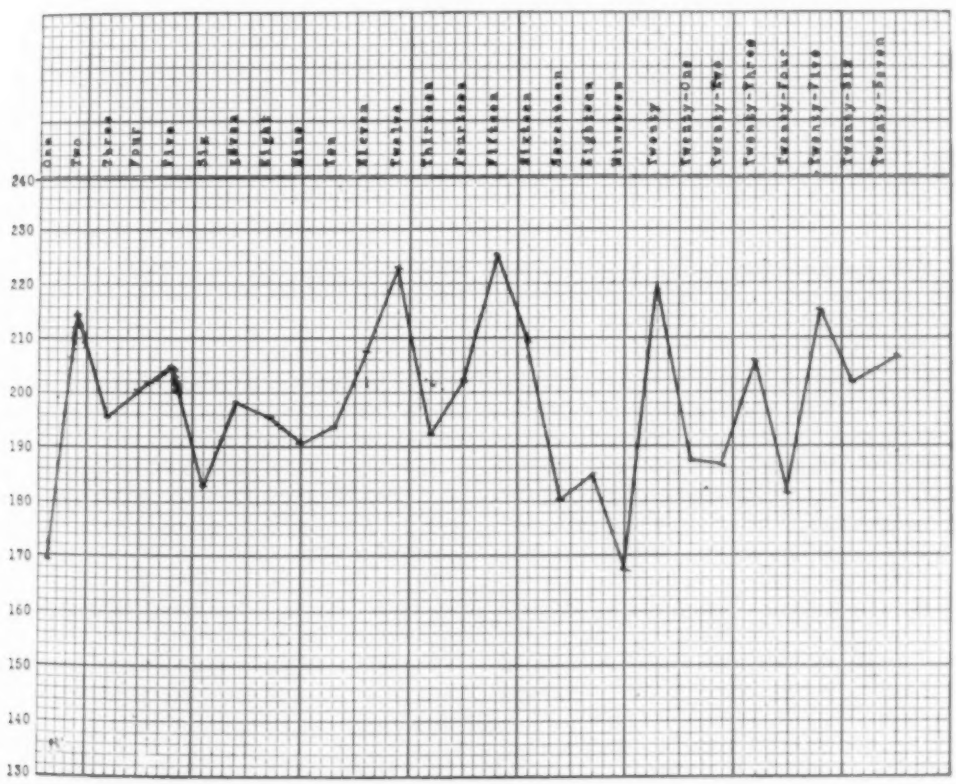
MARY P. PARSONS
THE PARIS LIBRARY SCHOOL

EDUCATIONAL RESEARCH AND STATISTICS

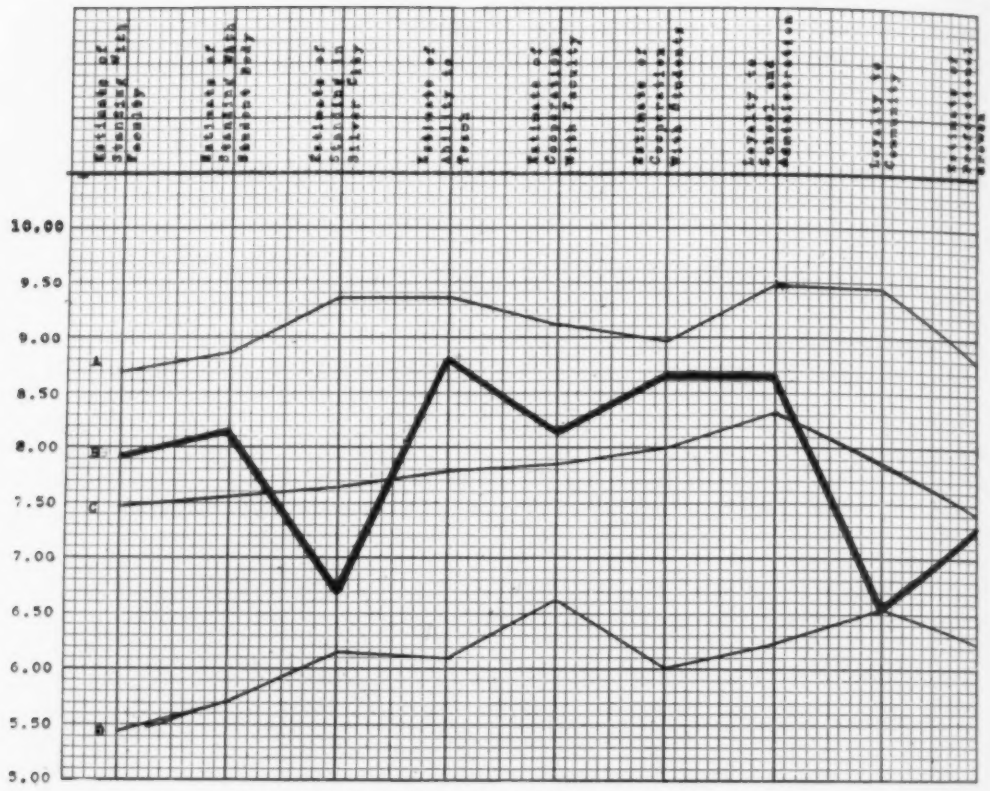
A FACULTY SELF-RATING SYSTEM

WITHIN the last dozen years there have appeared many suggestions on the necessity, desirability and methods for a self-rating system of teachers in service. The following is offered as an additional method of aiding teachers to appraise the professional and social standing of themselves in the school community.

GRAPH I. Faculty (individually).
(Each member's totals added and averaged to obtain following comparative graph.)



GRAPH II. Number 26.



A—highest points scored by the faculty; B—an individual teacher's score; C—the average of the entire faculty; D—the lowest points scored by faculty.

A scale was mimeographed on which teachers could estimate each other as superior, good, medium, poor, or very poor in the qualities which are given at the top of graph II of this article. A copy was given each faculty member. Each teacher was requested to mark the appropriate square with an X indicating the degree and quality each teacher possessed, including his own estimate of himself. Perhaps the most commendable feature of the scale is that it required a little self-examination and self-rating to compare himself with each of his colleagues. Each teacher was given an envelope and asked to seal his rating and return unsigned to the president's office with no mark of identification, thereby insuring free expression of opinion.

The results were tabulated and graphs were made showing the standing of the faculty as a whole and giving the highest points scored by the faculty, the lowest points and the average. Superimposed on this was drawn the line indicating the standing of each teacher. A copy of both graphs was given each teacher. A part of the plan is to repeat the same operation several months apart and compare the results.

A marked improvement was observed in most of the faculty members on the points where they received a low rating, such as cooperation, professional growth, etc.

It is believed that a rating by one's peers is the surest way to promote growth and general improvement in the system.

The writer would be pleased to get data from other administrators based on the method given herewith.

A. O. BOWDEN
NEW MEXICO STATE TEACHERS' COLLEGE

d by
rage.
indi-
copy
part
ation
sults.
most
they
pro-

ers is
neral

from
given

CN